



PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

SHEILA C. HOLMAN
Director

XXXX, 2016

Mr. Charles Newsome
General Manager
Carolina Stalite Company
P. O. Box 1037
Salisbury, North Carolina 28145

SUBJECT: Air Quality Permit No. 03225T41
Facility ID: 8400013
Carolina Stalite Company - Aquadale Properties, LLC
Norwood
Stanly County
Fee Class: Title V
PSD Status: Major

Dear Mr. Newsome:

In accordance with your completed Air Quality Permit Application for a renewal of your Title V permit received March 28, 2016, we are forwarding herewith Air Quality Permit No. 03225T41 to Carolina Stalite Company, Aquadale Properties, LLC, 12423 Old Aquadale Road, Norwood, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon

receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Stanly County has been triggered for increment tracking under PSD for sulfur dioxide, nitrogen oxides, and particulate matter. However, no changes in actual emissions of these pollutants are associated with this permit renewal.

This Air Quality Permit shall be effective from XXXX 2016 until XXXX 2021, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. Should you have any questions concerning this matter, please contact Betty Gatano, P.E., at (919) 707-8736.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

cc: Heather Ceron, EPA Region 4
Ronald Slack, Supervisor, Mooresville Regional Office
Connie Horne (cover letter only)
Central Files

ATTACHMENT to Permit No. 03225T41

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID	Emission Source Description
ILABVENT1	One laboratory vent
I-Mixer	One mixing device installed at point of transfer of material from conveyor (ID No. FCS-14) to conveyor (ID No. FCS-C1)
I-GasTank	One gasoline storage tank (2000 gallons capacity)
I-RUC-1	One portable rail unloader/conveyor with diesel fired engine (55 horsepower)
I-ST1, I-ST2, and I-ST3	Three 10,000 gallons capacity each, storage tanks storing No. 2 fuel oil
I-ST4, I-ST5, and I-ST6	Three 20,000 gallons capacity each, storage tanks storing No. 2 fuel oil
I-FCS-48	One crusher feed bin

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit."
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "The Regulatory Guide for Insignificant Activities/Permits Exempt Activities Specific Permit Conditions Regulatory Guide.". The link to this site is as follows: <http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

Summary of Changes to Permit

The following changes were made to the Carolina Stalite Company, Aquadale Properties, LLC, Air Permit No. 03225T40:

Pages	Section	Description of Changes
Cover and throughout	--	Updated all dates and permit revision numbers.
Insignificant Activities	--	Added standard footnotes for insignificant activities.
7	1.0 – Equipment List	<ul style="list-style-type: none"> Removed asterisks and associated footnote specifying the manufacturing soil operations are minor modifications. Removed the coal conveyor belt (ID No. CCB-1) and the railcar unloading hopper (ID No. CCH-1). In an e-mail dated August 10, 2016, the consultant for the Permittee indicated these emission sources have been removed from the facility. Removed hydrated lime silo (ID No. ES-LS1) and associated bagfilters (ID Nos. CD-7B or CD-8B). In an e-mail dated August 10, 2016, the consultant for the Permittee indicated the silo has been removed from the facility.
8 – 9	2.1.A – Emission Sources	Reformatted and clarified the emission sources subject to regulations under Section 2.1.A. of the permit.
11	2.1.A.2.c	Removed statement specifying that “the types of materials and finishes” should be monitored. This requirement is not applicable to the raw material silos.
14	2.1.A.5.b	The testing requirement for 15A NCAC 02D .0530 incorrectly referenced a percent reduction. Corrected the testing condition to reference the BACT limits.
15	2.1.B – Regulation Table	Removed reference to sulfur dioxide under Compliance Assurance Monitoring (CAM). No CAM is required for sulfur dioxide emissions from the kilns (ID Nos. ES-7 and ES-8).
15	2.1.B.1.a	Added statement regarding general compliance with 15A NCAC 02D .0511.
16	2.1.B.1.d	Updated requirements for testing of the lightweight aggregate kilns (ID Nos. ES-7 and ES-8) for compliance with 15A NCAC 02D .0511, “Particulates from Lightweight Aggregate Processes.”
17 – 18	2.1.B.2.d (new numbering)	<ul style="list-style-type: none"> Moved permit condition for CEM monitoring downtime and reformatted the permit condition. Renumbered the permit accordingly.
18	2.1.B.5.h	Reformatted permit condition.
23	2.1.B.6	Updated 15A NCAC 02D .0614, Compliance Assurance Monitoring, for lightweight aggregate kilns (ID Nos. ES-7 and ES-8).
24 – 27	2.1.C	Removed the coal conveyor belt (ID No. CCB-1) and the railcar unloading hopper (ID No. CCH-1) throughout permit condition. In an e-mail dated August 10, 2016, the consultant for the Permittee indicated these emission sources have been removed from the facility.
25	2.1.C.2.c	Removed statement specifying that “the types of materials and finishes” should be monitored. This requirement is not applicable to the coal silo.
27	2.1.C.4.b.	The testing requirement for 15A NCAC 02D .0530 incorrectly referenced a percent reduction. Corrected the testing condition to reference the BACT emission limits.
29	2.1.D.3	Added a reference to require notification for start of the manufactured soil operation.
29	2.1.E – Regulations Table	Added reference to CAM for lightweight aggregate kiln (ID No. ES-9).

Pages	Section	Description of Changes
32	2.1.E.1.e (new numbering)	<ul style="list-style-type: none"> • Moved permit condition for CEM monitoring downtime and reformatted the permit condition. • Removed reference to %EE, which is not used in the percent monitor downtime equation. • Renumbered the permit accordingly.
34 – 36	2.1.E.5	Added permit condition for 15A NCAC 02D .0614, Compliance Assurance Monitoring, for lightweight aggregate kiln (ID No. ES-9).
37 – 38	2.2.A – Emission Sources	Reformatted and clarified the emission sources subject to regulations under Section 2.2.A. of the permit.
38	2.2.A.1.i	Added a noncompliance statement.
39 – 56	2.2.B.1	Reformatted permit condition to follow standard permitting structure.
56	2.2.B.1.b.iii (new numbering)	Removed noncompliance statement under 15A NCAC 02D .1100. Noncompliance statements are not applicable for state-enforceable only requirements.
56	2.2.B.1.b.iv (new numbering)	<ul style="list-style-type: none"> • Modified the testing requirement under 15A NCAC 02D .1100, to require testing for benzene and nickel. The Permittee has not previously conducted testing for these toxic air pollutants. • Removed noncompliance statement under 15A NCAC 02D .1100.
56	2.2.C.1	Reformatted permit condition to follow standard permitting structure.
57 – 67	3.0	Updated the General Conditions and the List of Acronyms to the most current version (V4.0: 12/17/2015).



State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03225T41	03225T40	XXXX	XXXX

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee:

**Carolina Stalite Company
Aquadale Properties, LLC
8400013**

Facility ID:

Facility Site Location:

City, County, State, Zip:

Mailing Address:

City, State, Zip:

12423 Old Aquadale Road

Norwood, Stanly County, North Carolina 28128

P. O. Box 1037

Salisbury, North Carolina 28145

Application Number:

Complete Application Date:

8400013.16A

March 28, 2016

Primary SIC Codes:

3295

Division of Air Quality

Regional Office Address:

Mooresville Regional Office

610 East Center Avenue, Suite 301

Mooresville, North Carolina 28115

Permit issued this the XXth day of XXXX, 2016.

William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

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ATTACHMENT

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SECTION 1 - PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Raw material, nonmetallic mineral processing operation				
8, 37	RCS-23 through RCS-30	Eight conveyors (24 inches wide each)	NA	NA
8, 37	RCS-12	One conveyor (30 inches wide)	NA	NA
8, 37	RCS-91 ⁺ PSD	One conveyor (36 inches wide)	NA	NA
8, 37	RCS-94 ⁺ and RCS-95 ⁺ PSD	Two conveyors (30 inches wide each)	NA	NA
8, 37	RCS-18, RCS-19, and RCS-20	Three raw material (argillite) storage silos (600 tons storage capacity each with a combined maximum throughput of 350,400 tons per year total raw material (argillite) throughput)	NA	NA
8, 37	RCS-92 ⁺ and RCS-93 ⁺ PSD	Two raw material (argillite) silos (600 tons storage capacity each)	NA	NA
Finishing product, nonmetallic mineral processing operation				
8	APJC-1	One portable self-propelled jaw crusher (123 tons per hour) with integral feeder and conveyor	APJC-1S	One water spray
8	APJC-1-Eng	One portable self-propelled jaw crusher diesel engine (350 hp capacity)	NA	NA
8, 37	FCS-2	One short head crusher (85 tons per hour maximum crushing capacity)	FCS-6S	One water spray
8, 37	FCS-3	One short head crusher (85 tons per hour maximum crushing capacity)	FCS-3S	One water spray
8, 37	FCS-4	One conveyor (18 inches wide)	NA	NA
8, 37	FCS-5	One conveyor (24 inches wide)	NA	NA
8, 37	FCS-8	One conveyor (24 inches wide)	NA	NA
8, 37	FCS-10, FCS-14, and FCS-17	Three conveyors (30 inches wide each)	FCS-2S FCS-8S FCS-4S	Three water sprays installed one each on each conveyor
8, 37	FCS-11 and FCS-12	Two conveyors (30 inches wide each)	NA	NA
8, 37	FCS-13	One conveyor (30 inches wide)	NA	NA

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
8, 37	FCS-19 and FCS-30	Two multiple deck screens (5 feet x 16 feet each)	NA	NA
8, 37	FCS-20 and FCS-29	Two multiple deck screens (5 feet x 16 feet each)	NA	NA
8, 37	FCS-22, FCS-23, FCS-24, and FCS-25	Four finished product storage silos (110 tons maximum storage capacity each)	NA	NA
8, 37	FCS-26 and FCS-27	Two finished product surge hoppers (85 tons maximum storage capacity each)	NA	NA
8, 37	FCS-28	One finished product loadout bin (525 tons maximum capacity)	NA	NA
8, 37	FCS-36	One conveyor (30 inches wide)	NA	NA
8, 37	FCS-38 and FCS-39*	Two belt conveyors (24 inches wide each)	FCS-38S FCS-39S	Two water sprays installed one each on each conveyor
8, 37	FCS-40*	One belt conveyor (24 inches wide)	NA	NA
8, 37	FCS-41	One feed hopper (24 tons capacity – used for reclaimed clinker)	FCS-1S	One water spray
8, 37	FCS-42*	One belt conveyor (30 inches wide)	NA	NA
8, 37	FCS-43	One radial stacker conveyor (36 inches wide)	FCS-43S	One water spray
8, 37	FCS-C1	One conveyor (30 inches wide)	NA	NA
8, 37	FCS-C2, FCS-C3, and FCS-C4	Three conveyors (30 inches wide each)	FCS-C2S FCS-C3S FCS-C4S	Three water sprays installed one each on each conveyor
8, 37	FCS-C5	One conveyor (30 inches wide)	NA	NA
8, 37	FCS-44 ⁺ PSD	One conveyor (30 inches wide)	FCS-44S ⁺	One water spray
8, 37	FCS-45 ⁺ PSD	One conveyor (30 inches wide)	NA	NA
8, 37	FCS-46 ⁺ PSD	One conveyor (36 inches wide)	NA	NA
8, 37	FCS-47 ⁺ PSD	One conveyor (36 inches wide)	FCS-47S ⁺	One water spray
8, 37	FP	Finished product storage areas with a combined total maximum storage capacity of 165,000 tons at any given time including two stockpiles located north of the railroad tracks identified as FM-2 with a combined capacity of 60,000 tons at any given time	NA	NA
8, 37	FP-2 ⁺ PSD	Clinker pile for Kiln 9	FP-2S ⁺	One water spray

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
8, 37	DSC-1	One dust silo (340 tons maximum storage capacity)	DSC-1B DSC-2B	One fabric filter receiver (309 square feet of filter area) installed on storage silo inlet and water sprays installed on screw auger dust unloading system
8, 37	DS-3C ⁺ PSD	One dust silo (150 tons storage capacity)	DS-3CB ⁺	One bagfilter (2.6:1 air-to-cloth ratio)
Portable screening and conveying, nonmetallic mineral processing operation				
9, 37	PS-1	One portable screener (5 feet x 10 feet)	PS-1S	One water spray
9, 37	PSC-1	One portable screener feed conveyor (36 inches wide)		
9, 37	PSC-2	One portable screener main conveyor (36 inches wide)		
9, 37	PSC-3 and PSC-4	Two portable screener side discharge conveyors (26 inches wide each)		
9, 37	PSC-5	One portable screener tail conveyor (32 inches wide)		
9, 37	PSH-1	One portable screener feed hopper (550 tons per hour maximum capacity)		
9, 37	PSG-1	One portable screener diesel engine (76 hp capacity)	NA	NA
9	ATS-1	One portable screener feed hopper (100 tons per hour maximum capacity)	NA	NA
9	ATS-1-Eng	One portable screener diesel engine (139 hp capacity)	NA	NA
Coal handling and storage equipment				
24, 38	CCB-2 and CCB-3	Two kiln coal conveyor belts (30 inches wide each)	NA	NA
24, 38	CCB-4 ⁺ and CCB-5 ⁺ PSD	Two coal conveyors (24 inches wide each)	NA	NA
24, 38	CCH-2	One kiln feed coal hopper (100 tons per hour capacity)	NA	NA
24, 38	CCH-3 ⁺ PSD	One coal hopper (100 tons per hour capacity)	NA	NA
24, 38	CCS	Coal storage areas with a combined maximum permitted capacity of 25,000 tons at any given time	NA	NA
24, 38	CCS-1 PSD	One coal silo (300 tons storage capacity)	NA	NA

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Lightweight aggregate kilns and associated air pollution control equipment				
15, 38	ES-7 ¹	One lightweight aggregate rotary expansion kiln with clinker cooler (20 tons per hour of crushed argillite maximum permitted capacity) fired with coal, No. 2 fuel oil, and natural gas (96.7 ¹ million Btu per hour permitted heat input) ¹ [This is a facility-wide cap, which represents the combined heat input to both kilns; ID Nos. ES-7 and ES-8]	CD-7B	One pulse jet bagfilter (4:1 air-to-cloth ratio) with evaporative cooling and bleed-in air flue gas cooling system and a flue gas desulfurizing process consisting of lime slurry injection system (10 gallons/minute injection rate)
15, 38	ES-8 NSPS, Subpart UUU	One lightweight aggregate rotary expansion kiln with clinker cooler (30 tons per hour of crushed argillite maximum permitted capacity), fired with coal, No. 2 fuel oil, and natural gas (96.7 ¹ million Btu per hour permitted heat input) ¹ [This is a facility-wide cap, which represents the combined heat input to both kilns; ID Nos. ES-7 and ES-8]	CD-8B	One pulse jet bagfilter (4:1 air-to-cloth ratio) with evaporative cooling and bleed-in air flue gas cooling system and a flue gas desulfurizing process consisting of lime slurry injection system (10 gallons/minute injection rate)
29, 38	ES-9 ⁺ NSPS Subpart UUU PSD	One lightweight aggregate rotary expansion kiln with clinker cooler fired with coal/No. 2 fuel oil (60 tons per hour of crushed argillite permitted capacity, 135.5 million Btu per hour permitted heat input rate)	CD-9B ⁺	One pulse jet bagfilter (5:1 air-to-cloth ratio) with evaporative cooling and bleed-in air flue gas cooling system and lime slurry injection system (10 gallons/minute injection rate)
Manufactured Soil Operations				
27, 38	ES-MSO	Pile Activities	NA	NA
27, 38	ES-MSH-1, ES-MSH-2, ES-MSH-3, and ES-MSH-4	Four 20 ton Material Feed Hoppers	NA	NA
27, 38	ES-MSO-1 and ES-MSO-2	Two Material Conveyors (24 inches wide each)	NA	NA
27, 38	ES- MSC-3	Radial Stacker Conveyor	NA	NA
27, 38	ES- MSL-1	Portable Loader (Super Sac Bagger)	NA	NA

* May be constructed in future.

+ The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 02Q .0504 for one lightweight aggregate kiln (ID No. ES-9), seven material handling conveyors (ID Nos. RCS-91, RCS-94, RCS-95, FCS-44, FCS-45, FCS-46 and

FCS-47), two raw material silos (**ID Nos. RCS-92 and RCS-93**), one dust silo (**ID No. DS-3C**), one clinker pile (**ID No. FP-2**), one coal hopper (**ID No. CCH-3**), one coal silo (**ID No. CCS-1**), two coal conveyors (**ID Nos. CCB-4 and CCB-5**), and associated control devices (**ID Nos. CD-9B, DS-3CB, FCS-44S, FCS-47S and FP-2S**) on or before 12 months after commencing operation.

- ¹ Kiln (**ID No. ES-7**) is allowed to operate only until the commencement of operation of kiln (**ID No. ES-9**). The Permittee shall submit notification to DAQ Regional Supervisor for cessation of operation of kiln (**ID No. ES-7**) within 15 days of such event.

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 - Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. Raw material, nonmetallic mineral processing operation including the following:

- **Eight conveyors (24 inches wide each) (ID Nos. RCS-23 through RCS-30)**
- **Three conveyors (30 inches wide) (ID Nos. RCS-12, RCS-94, and RCS-95)**
- **One conveyor (36 inches wide) (ID No. RCS-91)**
- **Five raw material (argillite) storage silos (ID Nos. RCS-18, RCS-19, RCS-20, RCS-92 and RCS-93)**

Finishing product, nonmetallic mineral processing operation including the following:

- **One portable self-propelled jaw crusher with integral feeder and conveyor (ID No. APJC-1) with associated water spray (ID No. APJC-1S)**
- **One portable self-propelled jaw crusher diesel engine (ID No. APJC-1-Eng)**
- **Two short head crushers (ID Nos. FCS-2 and FCS-3) with associated water sprays (ID Nos. FCS-6S and FCS-3S, respectively)**
- **One conveyor (18 inches wide) (ID No. FCS-4)**
- **Two conveyors (24 inches wide) (ID Nos. FCS-5 and FCS-8)**
- **Six conveyors (30 inches wide each) (ID Nos. FCS-10, FCS-14, FCS-17, FCS-C2, FCS-C3, FCS-C4, and FCS-44) with associated water sprays (ID Nos. FCS-2S, FCS-8S, FCS-4S, FCS-C2S, FCS-C3S, FCS-C4S, and FCS-44S, respectively)**
- **Seven conveyors (30 inches wide each) (ID Nos. FCS-11, FCS-12, FCS-13, FCS-C1, FCS-C5, FCS-36, and FCS-45)**
- **Four multiple deck screens (5 feet x 16 feet each) (ID Nos. FCS-19, FCS-30, FCS-20, and FCS-29)**
- **Four finished product storage silos (ID Nos. FCS-22, FCS-23, FCS-24, and FCS-25)**
- **Two finished product surge hoppers (ID Nos. FCS-26 and FCS-27)**
- **One finished product loadout bin (ID No. FCS-28)**
- **Two belt conveyors (24 inches wide each) (ID Nos. FCS-38 and FCS-39) with associated water sprays (ID Nos. FCS-38S and FCS-39S, respectively)**
- **One belt conveyor (24 inches wide) (ID No. FCS-40)**
- **One feed hopper (ID No. FCS-41) with associated water spray (ID No. FCS-1S)**
- **One belt conveyor (30 inches wide) (ID No. FCS-42)**
- **One radial stacker conveyor (36 inches wide) (ID No. FCS-43) with associated water spray (ID No. FCS-43S)**
- **One conveyor (36 inches wide) (ID No. FCS-46)**
- **One conveyor (36 inches wide) (ID No. FCS-47) with associated water spray (ID No. FCS-47S)**
- **Clinker pile for Kiln 9 (ID No. FP-2) with associated water spray (ID No. FP-2S)**

- One dust silo (ID Nos. DSC-1) with associated fabric filter receiver installed on storage silo inlet (ID No. DCS-1B) and water sprays installed on screw auger dust unloading system (ID No. DSC-2B)
- One dust silo (ID No. DS-3C) with associated bagfilter (ID No. DS-3CB)
- Finished product storage areas (ID No. FP)

Portable screening and conveying, nonmetallic mineral processing operation including the following:

- One portable screener (5 feet x 10 feet) (ID No. PS-1); one portable screener feed conveyor (36 inches wide) (ID No. PSC-1); one portable screener main conveyor (36 inches wide) (ID Nos. PSC-2); two portable screener side discharge conveyors (26 inches wide each) (ID Nos. PSC-3 and PSC-4); one portable screener tail conveyor (32 inches wide) (ID No. PSC-5); and one portable screener feed hopper (ID No. PSH-1) with associated water spray (ID No. PS-1S)
- One portable screener feed hopper (ID No. ATS-1)
- Two portable screener diesel engines (ID Nos. PSG-1 and ATS-1-Eng)

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(ID Nos. APJC-1, FCS-2, and FCS-3) Crushers shall be equipped with wet suppression control Control particulate matter emissions from conveyors and transfer points (ID Nos. RCS-12, RCS-23 through RCS-30, RCS-91, RCS-94, RCS-95, APJC-1, FCS-2 through FCS-5, FCS-8, FCS-10 through FCS-14, FCS-17, FCS-19, FCS-20, FCS-22 through FCS-30, FCS-36, FCS-38 through FCS-47, FCS-C1 through FCS-C5, FP, FP-2, PS-1, PSC-1 through PSC-5, PSH-1 and ATS-1)	15A NCAC 02D .0511
Particulate matter	(ID Nos. RCS-18 through RCS-20, RCS-92, RCS-93, DSC-1, and DS-3C) $E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr Where, E=allowable emission rate in pounds per hour P=process weight rate in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	(ID Nos. PSG-1, APJC-1-Eng, and ATS-1-Eng only) 2.3 pounds per million Btu heat input	15A NCAC 02D .0516

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	(ID Nos. RCS-12, RCS-18 through RCS-20, RCS-23 through RCS-30, FCS-2, FCS-4, FCS-10, FCS-12, FCS-14, FCS-17, FCS-22 through FCS-25, FCS-27, FCS-41, PSG-1, and FP) 40 percent opacity (ID Nos. RCS-91 through RCS-95, APJC-1, APJC-1-Eng, FCS-3, FCS-5, FCS-8, FCS-11, FCS-13, FCS-19, FCS-20, FCS-26, FCS-28 through FCS-30, FCS-44 through FCS-47, FP-2, FCS-C1 through FCS-C5, DSC-1, DS-3C, PS-1, PSC-1 through PSC-5, PSH-1 and APS-1-Eng) 20 percent opacity	15A NCAC 02D .0521(c) 15A NCAC 02D .0521(d)
PM ₁₀ PM _{2.5}	BACT limits	15A NCAC 02D .0530
Fugitive dust emissions	State-enforceable only See General Condition MM	15A NCAC 02D .0540
Particulate matter	See Section 2.2 A.1.	15A NCAC 02D .0501(e)
Toxic air pollutants	State enforceable only See Section 2.2 B.	15A NCAC 02D .1100

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported, or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM₁₀ and total suspended particulates, from being exceeded beyond the property line.
- b. The Permittee shall control emissions from the crushers (ID Nos. APJC-1, FCS-2, and FCS-3) with wet suppression (ID Nos. APJC-1S, FCS-6S, and FCS-3S) as described above.
- c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards are not exceeded.

Testing [15A NCAC 02Q .0508(f)]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Sections 2.1 A.1.a-c above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

Monitoring [15A NCAC 02Q .0508(f)]

- e. To assure compliance, once a day, the Permittee shall observe the wet suppression systems (ID Nos. APJC-1S, FCS-6S, and FCS-3S) installed on the crushers (ID Nos. APJC-1, FCS-2, and FCS-3) for proper operation. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. If the observations are not performed, crushers with malfunctioning wet suppression systems are not immediately shut down or malfunctioning wet suppression systems are not repaired within 24 hours, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0511.

Recordkeeping [15A NCAC 02Q .0508(f)]

- f. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;

- ii. the results of each observation noting those sources that were observed to be in noncompliance along with any corrective actions taken; and
 - iii. the results of any corrective actions performed.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- g. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these dust silos (**ID Nos. RCS-18 through RCS-20, RCS-92, RCS-93, DSC-1, and DS-3C**) shall not exceed an allowable emission rate as calculated by the following equation:
[15A NCAC 02D .0515(a)]

$$E = 4.10 \times P^{0.67} \quad \text{for } P \leq 30 \text{ tons per hour}$$

or

$$E = 55.0 \times P^{0.11} - 40 \quad \text{for } P > 30 \text{ tons per hour}$$

where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The Permittee shall maintain production records such that the process rates "P" for the raw material silos (**ID Nos. RCS-18 through RCS-20, RCS-92, and RCS-93**) in tons per hour, as specified by the formulas contained above (or the formulas contained in 15A NCAC 02D .0515) can be derived, and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the production records are not maintained.
- d. Particulate matter emissions from the dust silo (**ID No. DSC-1**) shall be controlled by one bagfilter (**ID No. DSC-1B**) installed on the inlet and water spray (**ID No. DSC-2B**) on the screw auger dust unloading system. Particulate matter emissions from the dust silo (**ID No. DS-3C**) shall be controlled by one bagfilter (**ID No. DS-3CB**). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters (**ID No. DSC-1B and DS-3CB**) are not inspected and maintained.

- e. The results of the inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the bagfilters (**ID Nos. DSC-1B and DS-3CB**); and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. No reporting is required for production records specified in Section 2.1 A.2.c. above.
- g. The Permittee shall submit the results of any maintenance performed on the bagfilters (**ID Nos. DSC-1 and DS-3CB**) within 30 days of a written request by the DAQ.
- h. The Permittee shall submit a summary report of the monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the receding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources (**ID Nos. PSG-1, APJC-1-Eng, and ATS-1-Eng**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of diesel fuel in these sources (**ID Nos. PSG-1 APJC-1-Eng, and ATS-1-Eng**).

4. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISIONS

- a. Visible emissions from these sources (**ID Nos. RCS-91 through RCS-95, APJC-1S, APJC-1-Eng, FCS-3, FCS-5, FCS-8, FCS-11, FCS-13, FCS-19, FCS-20, FCS-26, FCS-28 through FCS-30, FCS-44 through FCS-47, FP-2, FCS-C1 through FCS-C5, DSC-1, DS-3C, PS-1, PSC-1 through PSC-5, PSH-1, ATS-1, and ATS-1-Eng**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.
- b. Visible emissions from these sources (**ID Nos. RCS-12, RCS-18 through RCS-20, RCS-23 through RCS-30, FCS-2, FCS-4, FCS-10, FCS-12, FCS-14, FCS-17, FCS-22 through FCS-25, FCS-27, FCS-41, PSG-1, and FP**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.4.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- d. To assure compliance, once a week the Permittee shall observe the emission points of these sources for any visible emissions above normal. The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement. The Permittee shall establish “normal” for the sources (**ID Nos. RCS-91 through RCS-95, APJC-1S, APJC-1-Eng, FCS-44 through FCS-47, FP-2, DS-3C and ATS-1, and ATS-1-Eng**) in the first 30 days following the initial start-up of the sources. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.4.a. or b. above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- the date and time of each recorded action;
 - the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

5. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The following Best Available Control Technology (BACT) limits shall not be exceeded:

Emission Source	Pollutants	Emission Limits*	Control Technology
Raw Material Conveyors (ID Nos. RCS-91, RCS-94 and RCS-95)	PM ₁₀ (filterable only)	7% opacity (6-minute average)	None
	PM _{2.5} (filterable only)	7% opacity (6-minute average)	None
Clinker Conveyors (ID Nos. FCS-44 and FCS-47)	PM ₁₀ (filterable only)	7% opacity (6-minute average)	water spray
	PM _{2.5} (filterable only)	7% opacity (6-minute average)	water spray

Emission Source	Pollutants	Emission Limits*	Control Technology
Clinker Conveyors (ID Nos. FCS-45 and FCS-46)	PM ₁₀ (filterable only)	7% opacity (6-minute average)	None
	PM _{2.5} (filterable only)	7% opacity (6-minute average)	None
Raw Material Silos (ID Nos. RCS-92 and RCS-93)	PM ₁₀ (filterable only)	7% opacity (6-minute average)	None
	PM _{2.5} (filterable only)	7% opacity (6-minute average)	None
Dust Silo (ID No. DS-3C)	PM ₁₀ (filterable only)	7% opacity (6-minute average)	baghouse
	PM _{2.5} (filterable only)	7% opacity (6-minute average)	baghouse
Clinker Pile (ID No. FP-2)	PM ₁₀ (filterable only)	No visible emissions (Method 22)	water spray
	PM _{2.5} (filterable only)	No visible emissions (Method 22)	water spray

* BACT emission limits shall apply at all times except, emissions resulting from start-up, shutdown or malfunction above those given in Section 2.1 A.5.a. above are permitted provided that optimal operational practices are adhered to and periods of excess emissions are minimized.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 A.5.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Monitoring/recordkeeping requirements in Section 2.1 A.4.d. and e. above shall be sufficient to assure compliance with the applicable requirement in Section 2.1 A.5.a. above. If the monitoring/recordkeeping requirements in Section 2.1 A.4.d. and e. above are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Reporting [15A NCAC 02Q .0508(f)]

- d. Reporting requirements in Section 2.1 A.4.f. above shall be sufficient to assure compliance with the applicable requirement in Section 2.1 A.5.a. above.

B. Two lightweight aggregate kilns including clinker coolers (ID Nos. ES-7 and ES-8) with associated bagfilters (ID Nos. CD-7B and CD-8B, respectively)

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Stack emissions from each kiln shall be reduced by at least 95 percent by weight by the bagfilters	15A NCAC 02D .0511
Sulfur dioxide	(ID Nos. ES-7 and ES-8) 2.3 pounds per million Btu (combined emissions from combustion of fuel and aggregate)	15A NCAC 02D .0516
Visible emissions	(ID No. ES-7 only) 40 percent opacity	15A NCAC 02D .0521(c)
Particulate matter	(ID No. ES-8 only) 0.092 gm/dscm [0.04 gr/dscf] 10 percent opacity	15A NCAC 02D .0524 (40 CFR 60, Subpart UUU)
Malfunction abatement plan	(ID No. ES-7 only) As defined in specific conditions	15A NCAC 02D .0535

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(ID Nos. ES-7 and ES-8) Compliance Assurance Monitoring	15A NCAC 02D .0614
Nitrogen oxides	(ID Nos. ES-7 and ES-8) 416 tons per any consecutive 12-month period (ID No. ES-8 only) 135.4 tons per any consecutive 12-month period	15A NCAC 02Q .0317 (PSD Avoidance)
Sulfur dioxide	(ID No. ES-8 only) 343.2 tons per any consecutive 12-month period	15A NCAC 02Q .0317 (PSD Avoidance)
Particulate matter	(ID No. ES-8 only) 36.8 tons per any consecutive 12-month period	15A NCAC 02Q .0317 (PSD Avoidance)
PM ₁₀	(ID No. ES-8 only) 26.8 tons per any consecutive 12-month period	15A NCAC 02Q .0317 (PSD Avoidance)
Fugitive dust emissions	State-enforceable only See General Condition MM	15A NCAC 02D .0540
Particulate matter and sulfur dioxide	See Section 2.2 A.	15A NCAC 02D .0501(e)
Toxic air pollutant emissions	State-enforceable only See Section 2.2 B.	15A NCAC 02D .1100

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported, or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM₁₀ and total suspended particulates, from being exceeded beyond the property line.
- b. Particulate matter from any stack serving these sources (ID Nos. ES-7 and ES-8) shall be reduced by at least 95 percent by weight before being discharged to the atmosphere. The 95 percent reduction shall be by air pollution control devices.

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are below the percent reduction requirement given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.
- d. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the percent reduction requirement above by testing each bagfilter (ID Nos. CD-7B and CD-8B) for particulate matter removal efficiency in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 - General Condition JJ. Testing shall be completed within 18 months of re-start of the kilns (ID Nos. ES-7 and ES-8), unless an alternate date is approved by the DAQ. If the results of any test are below the percent reduction requirement given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- e. Particulate matter emissions from these sources (ID Nos. ES-7 and ES-8) shall be controlled by bagfilters (ID Nos. CD-7B and CD-8B) as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and

- ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' **(ID Nos. CD-7B and CD-8B)** structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if these requirements are not met.

- f. The results of inspection and maintenance activities shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the bagfilters **(ID Nos. CD-7B and CD-8B)**; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- g. The Permittee shall submit the results of any maintenance performed on the bagfilters **(ID Nos. CD-7B and CD-8B)** within 30 days of a written request by the DAQ.
- h. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources **(ID Nos. ES-7 and ES-8)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. To assure compliance, the Permittee shall have installed on the exhaust stack of each kiln **(ID Nos. ES-7 and ES-8)** a sulfur dioxide continuous emissions monitoring (CEM) system including any required diluent monitor system. The CEM shall be constructed, installed and operated in accordance with the following requirements:
 - i. the CEM systems shall be installed, calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures and any written manufacturers specifications or recommendations as approved by the Division in the Quality Assurance Plan (QAP). A CEM system that simultaneously serves more than one stack shall meet the requirements of Appendices B and F and the QAP for the multiple stacks operating mode;
 - ii. compliance with the sulfur dioxide emission standard shall be demonstrated based on a three hour rolling average of the sulfur dioxide exhaust gas concentration measured by the CEM systems. If any 3-hour block average exceeds 2.3 pounds per million BTU heat input, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.
 - iii. the dry lime injection system and/or lime slurry injection system shall be properly maintained and operated as necessary to comply with the emission limit of Section 2.1 B.2.a. A visible or an audible warning system shall be installed on the CEM system. The CEM system shall alert the Permittee as to when CEM readings are 90% of the sulfur dioxide emission rate as included in Section 2.1 B.2.a. In the

event that a visible or audible warning system is not installed on the CEM system or becomes not functional, the Permittee shall repair the alarm system within 24 hours or the Permittee shall be deemed in noncompliance with the requirements of Section 2.1 B.2.a. Failure of the dry lime injection system and lime slurry system to control sulfur dioxide emissions to levels below the emission limit, as stated in Section 2.1 B.2.c.ii above, shall require the following actions:

- A. coal to the kiln (**ID Nos. ES-7 and ES-8**) shall immediately be shut-off and the kiln (**ID Nos. ES-7 and ES-8**) switched to No. 2 fuel oil or natural gas;
 - B. the Permittee shall reduce kiln (**ID Nos. ES-7 and ES-8**) operations and standard fuel combustion as necessary to maintain compliance with the emission limitations and permit requirements for sulfur dioxide until such time as the failed lime injection or lime slurry injection system is properly operating;
 - C. the Permittee shall maintain a written record containing the date, time of lime injection system failure and or lime slurry injection system failure, kiln and bagfilter number, the corrective actions or repairs necessary to enable proper operation of the lime injection system and or lime slurry injection system, the amount of time the lime injection system and or lime slurry injection system were off-line, and the sulfur dioxide emissions in pounds per million Btu heat input as recorded during the time the lime injection system and or lime slurry injection system were not operational. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if these records are not maintained.
- d. The CEM monitors shall be deemed to be properly operated and maintained if the Percent Monitor Downtime (%MD) does not exceed 2.0 percent.

Percent Monitor Downtime (%MD) Calculation for CEMS:

$$\%MD = \frac{\text{Total Monitor Downtime}^*}{\text{Total Source Operating Time}^{**}} \times 100$$

* Total Monitor Downtime includes Quality Assurance (QA) activities unless exempted by regulation or defined in an agency approved QA Manual. The amount of exempt QA Time will be reported in the quarterly report as such.

** If a source operates less than 2200 hours during any quarter, the source may calculate the %MD using all operating data for the current quarter and the preceding quarters until 2200 hours of data are obtained. [N.C.G.S. 143-215.110]

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a sulfur dioxide emissions report containing a summary of the three-hour rolling averages and maximum sulfur dioxide emissions, and a CEM performance report as required by the QAP postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The form and content of the report shall be in accordance with the guidelines set forth in 40 CFR 60.7(d). All instances of deviations from the requirements of this permit must be clearly identified. The reports and any revised QAP information shall be submitted to the Division of Air Quality, Technical Services Section, Stationary Source Compliance Branch, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641.
- f. The Permittee shall submit any excess sulfur dioxide emission reports as measured by the continuous emission monitor postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. If there are no excess emissions, the Permittee shall submit a report stating that no excess emissions occurred during the semiannual reporting period.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-7**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in a 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. To assure compliance, once a week the Permittee shall observe the emission points of this source (**ID No. ES-7**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - demonstrate that the percent opacity from the emission points of these emission sources in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.3.a above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- the date and time of each recorded action;
 - the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. For this source (**ID No. ES-8**), the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart UUU, including Subpart A, "General Provisions."

Emission Limitations [15A NCAC 02D .0524]

- b. Particulate matter emissions from this source (**ID No. ES-8**) shall not exceed 0.092 gm/dscm [0.04 gr/dscf].
- c. Visible emissions from this source (**ID No. ES-8**) shall not exceed 10 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.4.b or c above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- e. To assure compliance with the emission limit in Section 2.1 B.4.c above, once a week the Permittee shall observe the emission points of this source (**ID No. ES-8**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source (**ID No. ES-8**) are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source (**ID No. ES-8**) in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.4.c above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524.

- f. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

- g. For kiln (**ID No. ES-8**), the monitoring/recordkeeping requirements in Section 2.1 B.1.e and f above shall be sufficient to assure compliance with the particulate matter emission limit of Section 2.1 B.4.b above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the monitoring/recordkeeping requirements in Section 2.1 B.1.e and f above are not met.

Reporting [15A NCAC 02Q .0508(f)]

- h. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**5. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 02D .0530(g), these sources (**ID Nos. ES-7 and ES-8**) shall discharge into the atmosphere combined total nitrogen oxides emissions not to exceed 416 tons per any consecutive 12-month period. To ensure emissions of nitrogen oxides do not exceed the limitation above, the following restrictions shall apply:
 - i. the combined heat input to these sources (**ID Nos. ES-7 and ES-8**) shall not exceed 96.7 million Btu per hour.
 - ii. the total coal burned in these sources (**ID Nos. ES-7 and ES-8**) shall not exceed 32,157 tons per any consecutive 12-month period.
- b. In order to avoid the applicability of 15A NCAC 02D .0530(g), this source (**ID No. ES-8**) shall discharge into the atmosphere nitrogen oxides emissions not to exceed 135.4 tons per any consecutive 12-month period.

- To ensure emissions of nitrogen oxides do not exceed the limitation above, the heat input to this source (**ID No. ES-8**) shall not exceed 439,096 million Btu per any consecutive 12-month period.
- c. In order to avoid the applicability of 15A NCAC 02D .0530(g), this source (**ID No. ES-8**) shall discharge into the atmosphere sulfur dioxide emissions not to exceed 343.2 tons per any consecutive 12-month period. To ensure emissions of sulfur dioxide do not exceed the limitation above, the heat input to this source (**ID No. ES-8**) shall not exceed 439,096 million Btu per any consecutive 12-month period.
 - d. In order to avoid the applicability of 15A NCAC 02D .0530(g), this source (**ID No. ES-8**) shall discharge into the atmosphere particulate matter emissions not to exceed 36.8 tons per any consecutive 12-month period. To ensure emissions of particulate matter do not exceed the limitation above, the maximum amount of raw materials (argillite) processed in this source (**ID No. ES-8**) shall not exceed 236,074 tons per any consecutive 12-month period.
 - e. In order to avoid the applicability of 15A NCAC 02D .0530(g), this source (**ID No. ES-8**) shall discharge into the atmosphere PM₁₀ emissions not to exceed 26.8 tons per any consecutive 12-month period. To ensure emissions of PM₁₀ do not exceed the limitation above, the maximum amount of raw materials (argillite) processed in this source (**ID No. ES-8**) shall not exceed 236,074 tons per any consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

- f. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 B.5.a through e above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- g. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits given in Section 2.1 B.5.a and b above by testing one of these sources¹ (**ID Nos. ES-7 and ES-8**) each year while combusting coal, No. 2 oil, and natural gas, for nitrogen oxides in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 – General Condition JJ. Testing shall commence within one year of issuance of the permit unless an alternate date is approved by the DAQ. For the first stack test event, the Permittee shall demonstrate compliance with the limits given in Section 2.1 B.5.a and b by using the higher of the emission factor for nitrogen oxides, derived through the stack test or the value given in Section 2.1 B.5.j. The emission factor for nitrogen oxides used in the demonstration of compliance with the Section 2.1 B.5.a and b for the first compliance demonstration shall be used for comparison with the emission factor observed for the next stack test event, and higher of the value of emission factor for nitrogen oxides shall be used to demonstrate compliance with the limits given in Section 2.1 B.5.a and b. The Permittee shall follow the above procedures for all remaining stack test events. If the results of any tests are above the limits given in Section 2.1 B.5.a and b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- h. The Permittee shall demonstrate compliance with the facility wide (**ID Nos. ES-7 and ES-8**) total heat input rate and heat input rate to kiln (**ID No. ES-8**) given in Section 2.1 B.5.a through e above by monitoring heat input to the kiln using measured fuel heat content (either direct analysis or vendor certifications) and a flow device (for instance, mass flow meters for liquid fuels, belt scales or auger meters for coal, etc.) as approved by the DAQ. For coal feeds under this option, the Permittee may use a monthly average (no less frequent) coal heat value obtained from individual coal shipments received at the facility. The calculated average shall be a weighted average based on the weight of each coal shipment.
- i. If the results of any calculations or estimation (of facility wide (**ID Nos. ES-7 and ES-8**) heat input or heat input to kiln (**ID No. ES-8**)) indicate that the facility wide total heat input to all kilns (**ID Nos. ES-7 and ES-8**) or heat input to kiln (**ID No. ES-8**) exceed the limits given in Section 2.1 B.5.a through e above, and if the Permittee does not take immediate action as stated in the Malfunction Abatement Plan to include shutting down the kiln and to record that such action was taken, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530. Failure to take immediate corrective action and to record that such action was taken shall not be considered a malfunction unless it can comply with the requirements of 15A NCAC 02D .0535.

¹ The Permittee shall test one different source (**ID Nos. ES-7 and ES-8**) every year.

- j. The Permittee may demonstrate compliance with the nitrogen oxides limit for the kiln (**ID No. ES-8**) in Section 2.1 B.5.b above, by installing a CEM on the kiln (**ID No. ES-8**) stack, instead of the procedure included in this Section (i.e., using heat input calculations). For nitrogen oxides CEM, the Permittee shall comply with the requirements of Section 2.1 B.2.c.i and Section 2.1 B.2.d through f, as applicable.
- k. The Permittee may demonstrate compliance with the sulfur dioxide limit for the kiln (**ID No. ES-8**) in Section 2.1 B.5.c above, by using the procedure included in Section 2.1 B.2.c (i.e., using sulfur dioxide CEM), instead of the procedure included in this Section (i.e., using heat input calculations). For sulfur dioxide CEM, the Permittee shall comply with the requirements of Section 2.1 B.2.c through f as applicable.
- l. The Permittee shall demonstrate compliance with the raw materials (argillite) processing limitation for the kiln (**ID No. ES-8**) in Section 2.1 B.5.d. and e above, by recording the weight of argillite, by conveyor weight scale for all raw materials conveyed to the kiln (**ID No. ES-8**). Kiln production tonnage losses due to conveyor spillage and which do not enter the kiln may be deducted from the kiln production tonnage limitation only after the spillage weight is documented by weigh scale and properly recorded in the kiln production records. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- m. The Permittee shall maintain monthly records (written or in electronic format) of coal, No. 2 fuel oil, and natural gas, combusted in the kilns and nitrogen oxides emissions using the emission factors; 1.0 pounds per million Btu for coal and 0.14 pounds per million Btu for No. 2 fuel oil and natural gas. The Permittee shall also maintain facility wide heat input calculations, associated measurements, and analytical results. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- n. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. the monthly nitrogen oxides emissions for these sources (**ID Nos. ES-7 and ES-8**), and sulfur dioxide, particulate matter and PM₁₀ emissions for this source (**ID No. ES-8**) for the previous 17 months. The emissions for each of these pollutants must be calculated for each of the 12-month periods over the previous 17 months;
 - ii. the monthly quantities of coal, No. 2 fuel oil, and natural gas, for the previous 17 months;
 - iii. the monthly facility wide heat input calculations;
 - iv. the facility wide total tons of raw materials (argillite) processed for this source (**ID No. ES-8**) for the previous 17 months. The raw materials (argillite) processing shall be reported for each of the 12-month periods over the previous 17 months; and
 - v. all instances of deviations from the requirements of this permit must be clearly identified.

6. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

- a. Per 40 CFR 64 and 15A NCAC 02D .0614, the Permittee shall comply with the following.
- b. **Background**
 - i. Emission Unit.
 - (A) Description. One 20 ton per hour lightweight aggregate kiln with clinker cooler, and
One 30 ton per hour lightweight aggregate kiln with clinker cooler
 - (B) Identification. **ID Nos. ES-7 and ES-8**, respectively
 - ii. Applicable Regulation, Emission Limit, and Monitoring Requirements.
 - (A) Regulation and associated emission limits:

1. 15A NCAC 02D .0511 – particulate matter emissions from **ES-7 and ES-8** shall be reduced by at least 95% by weight by the bagfilters
 2. 15A NCAC 02D .0524 – particulate matter emissions from **ES-8** shall be less than 0.092 gm/dscf (0.04 gr/dscf)
- (B) Control Technology. Two bagfilters (4:1 air-to-cloth ratio each; **ID Nos. CD-7B and CD-8B**, respectively)
- c. **Monitoring Approach.** The key elements of the monitoring approach for particulate matter, including parameters to be monitored, parameter ranges and performance criteria are presented in the following table. The selected performance indicator is visible emissions.

	PM₁₀ Indicator
I. Indicator	Visible emissions
Measurement Approach	Visible emissions from the fabric filter will be monitored daily using EPA Reference Method 22-like procedures
II. Indicator Range	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection and corrective action.
QIP Threshold	The QIP threshold is five excursions in a 6-month period.
III. Performance Criteria	
A. Data Representativeness	Measurements are being made at the emission point (fabric filter outlet).
B. Verification of Operational Status	NA
C. QA/QC Practices	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures.
D. Monitoring Frequency	Observations are done daily.
Data Collection Procedures	VE observations are documented by the observer.
Averaging Periods	NA

Reporting [15A NCAC 02Q .0508(f)]

- d. The Permittee shall submit a summary report of all monitoring activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations for the requirements of this permit must be clearly identified. The report shall also include the following information, as applicable:
- i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration

- checks, if applicable); and
- iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

C. Coal handling and storage equipment including:

- **One kiln feed coal hopper (ID No. CCH-2);**
- **One coal hopper (ID No. CCH-3);**
- **Two kiln coal conveyor belts (ID Nos. CCB-2 and CCB-3);**
- **Two coal conveyors (ID Nos. CCB-4 and CCB-5);**
- **Coal storage areas (ID No. CCS); and**
- **One coal silo (ID No. CCS-1)**

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Control particulate matter emissions from conveyors transfer points, hoppers, and storage areas (ID Nos. CCH-2, CCH-3, CCB-2 through CCB-5, and CCS)	15A NCAC 02D .0511
Particulate matter	(ID No. CCS-1) $E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr Where, E=allowable emission rate in pounds per hour P=process weight rate in tons per hour	15A NCAC 02D .0515
Visible emissions	(ID Nos. CCH-2, CCB-2, CCB-3, and CCS) 40 percent opacity (ID Nos. CCH-3, CCB-4, CCB-5, and CCS-1) 20 percent opacity	15A NCAC 02D .0521(c) 15A NCAC 02D .0521(d)
PM ₁₀ PM _{2.5}	See Section 2.1 C.4.	15A NCAC 02D .0530
Fugitive dust emissions	State-enforceable only See General Condition MM	15A NCAC 02D .0540
Toxic air pollutants	State-enforceable only See Section 2.2 B.	15A NCAC 02D .1100

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported, or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM₁₀ and total suspended particulates, from being exceeded beyond the property line.
- b. The Permittee shall control emissions from the crushers with wet suppression.
- c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards are not exceeded.

Testing [15A NCAC 02Q .0508(f)]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Sections 2.1 C.1.a. through c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- e. Monitoring/recordkeeping requirements in Section 2.1 C.3. d. and e. below shall be sufficient to assure compliance with the applicable requirement in Section 2.1 C.1.a through c. above. If the monitoring/recordkeeping requirements in Section 2.1 C.3. d. and e. below are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the coal silo (**ID No. CCS-1**) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 02D .0515(a)]

$$E = 4.10 \times P^{0.67} \quad \text{for } P \leq 30 \text{ tons per hour}$$

or

$$E = 55.0 \times P^{0.11} - 40 \text{ for } P > 30 \text{ tons per hour}$$

where E = allowable emission rate in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The Permittee shall maintain production records such that the process rates "P" for the coal silo (**ID No. CCS-1**) in tons per hour, as specified by the formulas contained above (or the formulas contained in 15A NCAC 02D .0515) can be derived, and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the production records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- d. No reporting is required for production records specified in Section 2.1 C.2.c. above.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. CCH-2, CCB-2, CCB-3, and CCS**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed

40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

- b. Visible emissions from these sources (**ID Nos. CCH-3, CCB-4, CCB-5, and CCS-1**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 C.3.a and b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- d. To assure compliance, once a week the Permittee shall observe the emission points of these sources for any visible emissions above normal. The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement. The Permittee shall establish “normal” for the sources (**ID Nos. CCH-3, CCB-4, CCB-5, and CCS-1**) in the first 30 days following the initial start-up of the sources. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limits given in Section 2.1 C.2.a and b above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The following Best Available Control Technology (BACT) limits shall not be exceeded:

Emission Source	Pollutant	Emission Limits*	Control Technology
Coal Conveyors (ID Nos. CCB-4 and CCB-5)	PM ₁₀ (filterable only)	10% opacity (6-minute average)	None
	PM _{2.5} (filterable only)	10% opacity (6-minute average)	None
Coal Silo (ID No. CCS-1)	PM ₁₀ (filterable only)	20% opacity (6-minute average)	None
	PM _{2.5} (filterable only)	20% opacity (6-minute average)	None
Coal Hopper (ID No. CCH-3)	PM ₁₀ (filterable only)	10% opacity (6-minute average)	None
	PM _{2.5} (filterable only)	10% opacity (6-minute average)	None

* BACT emission limits shall apply at all times except, emissions resulting from start-up, shutdown or malfunction above those given in Section 2.1 C.4.a. above are permitted provided that optimal operational practices are adhered to and periods of excess emissions are minimized.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 C.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Monitoring/recordkeeping requirements in Section 2.1 C.3.d. and e. above shall be sufficient to assure compliance with the applicable requirement in Section 2.1 C.4.a. above. If the monitoring/recordkeeping requirements in Section 2.1 C.3.d. and e. above are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Reporting [15A NCAC 02Q .0508(f)]

- d. Reporting requirements in Section 2.1 C.3.f. above shall be sufficient to assure compliance with the applicable requirement in Section 2.1 C.4.a. above.

D. One Manufactured Soil Operation including the following:

- **Pile Activities (ID No. ES-MSO)**
- **Four 20 ton Material Feed Hoppers (ID Nos. ES-MSH-1, ES-MSH-2, ES-MSH-3 and ES-MSH-4);**
- **Two Material Conveyors (24 inches wide each) (ID Nos. ES-MSC-1 and ES-MSC-2);**
- **One Radial Stacker Conveyor (ID No. ES-MSC-3); and**
- **One Portable Loader (Super Sac Bagger) (ID No. ES-MSL-1)**

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	ambient air quality standards for particulate matter, both PM ₁₀ and total suspended particulates, shall not be exceeded beyond the property line	15A NCAC 02D .0511
Visible emissions	20 percent opacity	15A NCAC 02D .0521(d)
Fugitive dust emissions	State-enforceable only See General Condition MM	15A NCAC 02D .0540
Particulate matter	See Section 2.2 A.1.	15A NCAC 02D .0501(e)
Toxic air pollutants	State-enforceable only See Section 2.2 B.	15A NCAC 02D .1100
Odors	State-enforceable only See Section 2.2 C.	15A NCAC 02D .1806

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported, or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM₁₀ and total suspended particulates, from being exceeded beyond the property line.
- b. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards are not exceeded.

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Sections 2.1 D.1.a and b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- d. No monitoring/recordkeeping/reporting is required for these sources (**ID Nos. ES-MSO, ES-MSH-1, ES-MSH-2, ES-MSH-3, ES-MSH-4, ES-MSC-1, ES-MSC-2, ES-MSC-3, and ES-MSL-1**).

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-MSO, ES-MSH-1, ES-MSH-2, ES-MSH-3, ES-MSH-4, ES-MSC-1, ES-MSC-2, ES-MSC-3, and ES-MSL-1**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for the emission sources (**ID Nos. ES-MSH-1, ES-MSH-2, ES-MSH-3, ES-MSH-4, ES-MSC-1, ES-MSC-2, ES-MSC-3,**

and ES-MSL-1) within the first 30 operating days of the source, no later than 180 days from startup. If visible emissions from this source are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.2.a. above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. Under the provisions of NCGS 143-215.108, the Permittee shall notify in writing the Regional Supervisor of the actual beginning operation date of these sources (**ID Nos. ES-MSH-1, ES-MSH-2, ES-MSH-3, ES-MSH-4, ES-MS-C1, ES-MS-C2, ES-MS-C3, and ES-MSL-1**), postmarked within 15 days after such date.

E. One lightweight aggregate rotary expansion kiln including clinker cooler (ID No. ES-9) with associated lime slurry injection system and bagfilter (ID No. CD-9B)

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Stack emissions from lightweight aggregate kiln shall be reduced by at least 95 percent by weight by the bagfilter	15A NCAC 02D .0511
Sulfur dioxide	2.3 pounds per million Btu (combined emissions from combustion of fuel and aggregate)	15A NCAC 02D .0516
Particulate matter	0.092 gm/dscm [0.04 gr/dscf] 10 percent opacity	15A NCAC 02D .0524 (40 CFR 60, Subpart UUU)
Sulfur dioxide Nitrogen oxides PM ₁₀ PM _{2.5}	BACT limits	15A NCAC 02D .0530
Particulate matter	Compliance Assurance Monitoring	15A NCAC 02D .0614
Fugitive dust emissions	State-enforceable only See General Condition MM	15A NCAC 02D .0540
Toxic Air Pollutants	See Section 2.2 B.	15A NCAC 02D .1100

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. Particulate matter from any stack serving the kiln (**ID Nos. ES-9**) shall be reduced by at least 95 percent by weight before being discharged to the atmosphere. The 95 percent reduction shall be by air pollution control device.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are below the percent reduction requirement given in Section 2.1 E.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.
- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the percent reduction requirements above by testing the bagfilter (**ID Nos. CD-9B**) for particulate matter removal efficiency. Details of the emissions testing and reporting requirements can be found in General Condition JJ. Testing shall be completed within 180 days of initial start-up of kiln (**ID No. ES-9**). If the result of the test is below the percent reduction requirement given in Section 2.1 E.1.a. above or the stack test is not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- d. Particulate matter emissions from the kiln (**ID No. ES-9**) shall be controlled by a bagfilter. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilter's structural integrity.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if the ductwork and bagfilters are not inspected and maintained.
- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the bagfilters; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a written report of the results of each performance test required in Section 2.1 E.1.c. above before the close of business on the 60th day following the completion of the performance test.
- g. The Permittee shall submit the results of any maintenance performed on the bagfilter within 30 days of a written request by the DAQ.
- h. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from the lightweight aggregate kiln (**ID Nos. ES-9**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The Permittee shall monitor sulfur dioxide emissions from kiln (**ID No. ES-9**) using CEM. The CEM shall be installed, calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60, Appendix B, "Performance Specifications" and Appendix F, "Quality Assurance Procedures." The CEM shall be installed and operating no later than the date of the initial performance test required pursuant to Section 2.1 E.4.b. below. Compliance with sulfur dioxide emission standard in Section 2.1 E.2.a. above, shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values shall be summed, and the sum shall be divided by 24. A minimum of four data points, equally spaced, is required to determine a valid hour value unless the continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75. If the sulfur dioxide CEM does not comply with the requirements of this Section 2.1 E.2.c. or any 24-hour block average exceeds 2.3 pounds per million Btu heat input, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.
- d. Sulfur dioxide emissions from the kiln (**ID No. ES-9**) shall be controlled by the lime slurry injection system. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include an annual (for each 12-month period following the initial inspection) inspection of spray nozzles, lime slurry feed system, and the cleaning/calibration of all associated instrumentation. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the lime slurry injection system is not inspected and maintained.
- e. The CEM monitor shall be deemed to be properly operated and maintained if the Percent Monitor Downtime (%MD) does not exceed 2.0 percent.

Percent Monitor Downtime (%MD) Calculation for CEMS:

$$\%MD = \frac{\text{Total MonitorDowntime}^*}{\text{Total SourceOperatingTime}^{**}} \times 100$$

* Total Monitor Downtime includes Quality Assurance (QA) activities unless exempted by regulation or defined in an agency approved QA Manual. The amount of exempt QA Time will be reported in the quarterly report as such.

** If a source operates less than 2200 hours during any quarter, the source may calculate the %MD using all operating data for the current quarter and the preceding quarters until 2200 hours of data are obtained. [N.C.G.S. 143-215.110]

Reporting [15A NCAC 02Q .0508(f)]

- f. Within 30 days of a request from the DAQ, the Permittee shall submit a report of any maintenance and repairs performed on the lime slurry injection system.
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities, and continuous emissions monitoring data showing the 24-hour daily block values in pounds per million Btu for each 24-hour daily block averaging period during the reporting period, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. For the kiln (**ID No. ES-9**), the Permittee shall comply with all applicable provisions for emission standards, testing, monitoring, recordkeeping, notification, and reporting requirements, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60 Subpart UUU, including Subpart A, “General Provisions.”

Emission Standards [15A NCAC 02D .0524]

- b. Particulate matter emissions (except during startup, shutdowns, and malfunction) from the kiln (**ID No. ES-9**) shall not exceed 0.092 gm/dscm [0.04 gr/dscf].
- c. Visible emissions (except during startup, shutdowns, and malfunction) from the kiln (**ID No. ES-9**) shall not exceed 10 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- h. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.3.b. or c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
- e. The Permittee shall conduct initial performance test and submit a written report for particulate matter and visible emissions from kiln (**ID No. ES-9**) within 180 days of initial start-up of the kiln or within 60 days after the kiln achieves maximum production rate, whichever occurs first. Details of the emissions testing and reporting requirements can be found in 40 CFR 60.736 and General Condition JJ. If the results of this performance test are above the emission limits in Section 2.1 E.3.b. and c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- f. To assure compliance, once a week the Permittee shall observe the emission points of this kiln (**ID No. ES-9**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish “normal” for the source in the first 30 days following initial start-up of the kiln. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 E.3.c. above.If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.
- g. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and

iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

- h. Monitoring/recordkeeping requirements in Section 2.1 E.1.d. and e. above shall be sufficient to assure compliance with the particulate matter emission limit in Section 2.1 E.3.b. above for kiln (**ID No. ES-9**). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the monitoring/recordkeeping requirements in Section 2.1 E.1.d. and e. above are not met.

Reporting [15A NCAC 02Q .0508(f)]

- i. The Permittee shall submit a notification of the date construction of an affected facility is commenced, postmarked no later than 30 days after such date. [40 CFR 60.7(a)(1)]
- j. The Permittee shall submit a notification of the date of initial start-up of an affected facility, postmarked within 15 days after such date. [40 CFR 60.7(a)(3)]
- k. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The following Best Available Control Technology (BACT) limits shall not be exceeded:

Emission Source	Pollutants	Emission Limits	Control Technology
LWA Kiln (ID No. ES-9)	SO ₂	2.75 lb/ton of clinker (CEM: 30-day rolling average) and 1 %w coal sulfur content (based upon coal supplier certification per total shipment received)	lime slurry injection
	NO _x (as NO ₂)	0.84 lb/million Btu heat input (Stack Test: 3-hour average)	good combustion control
	PM ₁₀	0.20 lb/ton of clinker (filterable and condensible) and 0.01 grain/dscf (filterable only) (Stack Test: 3-hour average)	baghouse
	PM _{2.5}	0.12 lb/ton of clinker (filterable and condensible) and 0.01 grain/dscf (filterable only) (Stack Test: 3-hour average)	baghouse

* BACT emission limits shall apply at all times except, emissions resulting from start-up, shutdown or malfunction above those given in Section 2.1 E.4.a. above are permitted provided that optimal operational practices are adhered to and periods of excess emissions are minimized.

Testing [15A NCAC 02Q .0508(f)]

- b. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits for SO₂, NO_x, PM₁₀ and PM_{2.5}, in Section 2.1 E.4.a. above by testing kiln (**ID No. ES-9**) within 180 days of its initial start-up. Details of the emissions testing and reporting requirements can be found in

General Condition JJ. If the results of the performance test for SO₂, NO_x, PM₁₀, and PM_{2.5} exceed the respective emission limits in Section 2.1 E.4.a. above or the stack test is not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The Permittee shall monitor sulfur dioxide emissions from kiln (**ID No. ES-9**) using CEM. The CEM shall be installed, calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60, Appendix B, "Performance Specifications" and Appendix F, "Quality Assurance Procedures." If the sulfur dioxide CEM does not comply with the requirements of this Section 2.1 E.4.c. or any 24-hour rolling average exceeds SO₂ emission limit in Section 2.1 E.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- d. The Permittee shall monitor the sulfur content of the coal by using coal supplier certification per total shipment received. The coal supplier certification shall be recorded in a logbook (written or electronic format) per total shipment and include the following information:
 - i. the name of the coal supplier;
 - ii. the maximum sulfur content of the coal received per total shipment;
 - iii. a statement verifying that the methods used to determine the maximum sulfur content of the coal was in accordance with the following:
 - A) sampling -- ASTM Method D 2234;
 - B) preparation -- ASTM Method D 2013;
 - C) gross calorific value (Btu) -- ASTM Method D-5865
 - D) moisture content --ASTM Method D 3173; and
 - E) sulfur content -- ASTM Method D 3177 or ASTM Method D 4239.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the sulfur content of the coal exceeds the limit in Section 2.1 E.4.a. above or the sulfur content of the coal is not monitored and recorded.

- e. No monitoring/recordkeeping is required for emissions of NO_x from kiln (**ID No. ES-9**).
- f. Monitoring/Recordkeeping requirements for PM emissions from kiln (**ID No. ES-9**) in Section 2.1 E.1.d. and e. above shall be sufficient to assure compliance with the BACT limits for PM₁₀ and PM_{2.5} in Section 2.1 E.4.a. above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the monitoring/recordkeeping requirements in Section 2.1 E.1.d. and e. above are not met.

Reporting [15A NCAC 02Q .0508(f)]

- g. The Permittee shall submit a written report of the results of the performance test required in Section 2.1 E.4.b. above, before the close of business on the 60th day following the completion of the performance test.
- f. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour rolling average values in pounds per ton of clinker during the reporting period, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
- i. The Permittee shall submit a summary report of the coal supplier certifications postmarked or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. This summary report shall include a certified statement signed by the responsible official that the records of coal supplier certification submitted represent all of the coal fired during the reporting period. All instances of deviations from the requirements of this permit must be clearly identified.

5. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

- a. Per 40 CFR 64 and 15A NCAC 02D .0614, the Permittee shall comply with the following.
- b. **Background**

- i. **Emission Unit.**
 - (A) Description. One 60 ton per hour lightweight aggregate kiln with clinker cooler
 - (B) Identification. **ID No. ES-9**
- ii. **Applicable Regulation, Emission Limit, and Monitoring Requirements.**
 - (A) Regulation and associated emission limits:
 1. 15A NCAC 02D .0511 – particulate matter emissions shall be reduced by at least 95% by weight by the bagfilter
 2. 15A NCAC 02D .0524 – particulate matter emissions shall be less than 0.092 gm/dscf (0.04 gr/dscf)
 3. 15A NCAC 02D .0530 – emissions of PM₁₀ shall be less than 0.20 lb/ton of clinker (filterable and condensible) and 0.01 grain/dscf (filterable only)
 4. 15A NCAC 02D .0530 – emissions of PM_{2.5} shall be less than 0.12 lb/ton of clinker (filterable and condensible) and 0.01 grain/dscf (filterable only)
 - (B) Control Technology. One pulse jet bagfilter (5:1 air-to-cloth ratio; **ID No. CD-9B**)
- c. **Monitoring Approach.** The key elements of the monitoring approach for particulate matter, including parameters to be monitored, parameter ranges and performance criteria are presented in the following table. The selected performance indicator is visible emissions.

Measure	Indicator
I. Indicator	Visible emissions
Measurement Approach	Visible emissions from the fabric filter will be monitored daily using EPA Reference Method 22-like procedures
II. Indicator Range	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection and corrective action.
QIP Threshold	The QIP threshold is five excursions in a 6-month period.
III. Performance Criteria	
A. Data Representativeness	Measurements are being made at the emission point (fabric filter outlet).
B. Verification of Operational Status	NA
C. QA/QC Practices	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures.
D. Monitoring Frequency	Observations are done daily.
Data Collection Procedures	VE observations are documented by the observer.
Averaging Periods	NA

Reporting [15A NCAC 02Q .0508(f)]

- d. The Permittee shall submit a summary report of all monitoring activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations for the requirements of this permit must be clearly identified.

- i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

A. Raw material, nonmetallic mineral processing operation including the following:

- **Eight conveyors (24 inches wide each) (ID Nos. RCS-23 through RCS-30)**
- **Three conveyors (30 inches wide) (ID Nos. RCS-12, RCS-94, and RCS-95)**
- **One conveyor (36 inches wide) (ID No. RCS-91)**
- **Five raw material (argillite) storage silos (ID Nos. RCS-18, RCS-19, RCS-20, RCS-92 and RCS-93)**

Finishing product, nonmetallic mineral processing operation including the following:

- **Two short head crushers (ID Nos. FCS-2 and FCS-3) with associated water sprays (ID Nos. FCS-6S and FCS-3S, respectively)**
- **One conveyor (18 inches wide) (ID No. FCS-4)**
- **Two conveyors (24 inches wide) (ID Nos. FCS-5 and FCS-8)**
- **Six conveyors (30 inches wide each) (ID Nos. FCS-10, FCS-14, FCS-17, FCS-C2, FCS-C3, FCS-C4, and FCS-44) with associated water sprays (ID Nos. FCS-2S, FCS-8S, FCS-4S, FCS-C2S, FCS-C3S, FCS-C4S, and FCS-44S, respectively)**
- **Seven conveyors (30 inches wide each) (ID Nos. FCS-11, FCS-12, FCS-13, FCS-C1, FCS-C5, FCS-36, and FCS-45)**
- **Four multiple deck screens (5 feet x 16 feet each) (ID Nos. FCS-19, FCS-30, FCS-20, and FCS-29)**
- **Four finished product storage silos (ID Nos. FCS-22, FCS-23, FCS-24, and FCS-25)**
- **Two finished product surge hoppers (ID Nos. FCS-26 and FCS-27)**
- **One finished product loadout bin (ID No. FCS-28)**
- **Two belt conveyors (24 inches wide each) (ID Nos. FCS-38 and FCS-39) with associated water sprays (ID Nos. FCS-38S and FCS-39S, respectively)**
- **One belt conveyor (24 inches wide) (ID No. FCS-40)**
- **One feed hopper (ID No. FCS-41) with associated water spray (ID No. FCS-1S)**
- **One belt conveyor (30 inches wide) (ID No. FCS-42)**
- **One radial stacker conveyor (36 inches wide) (ID No. FCS-43) with associated water spray (ID No. FCS-43S)**
- **One conveyor (36 inches wide) (ID No. FCS-46)**
- **One conveyor (36 inches wide) (ID No. FCS-47) with associated water spray (ID No. FCS-47S)**
- **Clinker pile for Kiln 9 (ID No. FP-2) with associated water spray (ID No. FP-2S)**
- **One dust silo (ID Nos. DSC-1) with associated fabric filter receiver installed on storage silo inlet (ID No. DCS-1B) and water sprays installed on screw auger dust unloading system (ID No. DSC-2B)**
- **One dust silo (ID No. DS-3C) with associated bagfilter (ID No. DS-3CB)**
- **Finished product storage areas (ID No. FP)**

Portable screening and conveying, nonmetallic mineral processing operation including the following:

- **One portable screener (5 feet x 10 feet) (ID No. PS-1); one portable screener feed conveyor (36 inches wide) (ID No. PSC-1); one portable screener main conveyor (36 inches wide) (ID Nos. PSC-2); two portable screener side discharge conveyors (26 inches wide each) (ID Nos. PSC-3**

- and PSC-4); one portable screener tail conveyor (32 inches wide) (ID No. PSC-5); and one portable screener feed hopper (ID No. PSH-1) with associated water spray (ID No. PS-1S)
- One portable screener diesel engine (ID No. PSG-1)

Two lightweight aggregate kilns including clinker coolers (ID Nos. ES-7 and ES-8) with associated bagfilters (ID Nos. CD-7B and CD-8B)

Coal handling and storage equipment including:

- One kiln feed coal hopper (ID No. CCH-2);
- One coal hopper (ID No. CCH-3);
- Two kiln coal conveyor belts (ID Nos. CCB-2 and CCB-3);
- Two coal conveyors (ID Nos. CCB-4 and CCB-5);
- Coal storage areas (ID No. CCS); and
- One coal silo (ID No. CCS-1)

One Manufactured Soil Operation

- Pile Activities (ID No. ES-MSO)
- Four 20 ton Material Feed Hoppers (ID Nos. ES-MSH-1 through ES-MSH-4);
- two Material Conveyors (24 inches wide each) (ID Nos. ES-MSC-1 and ES-MSC-2);
- One Radial Stacker Conveyor (ID No. ES-MSC-3); and
- One Portable Loader (Super Sac Bagger) (ID No. ES-MSL-1)

One lightweight aggregate rotary expansion kiln including clinker cooler (ID No. ES-9) with associated lime slurry injection system and bagfilter (ID No. CD-9B)

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter (TSP and PM ₁₀) and sulfur dioxide	Compliance with national ambient air quality standards	15A NCAC 02D .0501(e)

1. 15A NCAC 02D .0501(e): COMPLIANCE WITH NATIONAL AMBIENT AIR QUALITY STANDARDS
15A NCAC 02D. 0402: AMBIENT AIR QUALITY STANDARDS - SULFUR OXIDES

- a. Finished product storage (ID No. FP) shall not exceed a maximum of 165,000 tons at any one time.
- b. Coal storage (ID No. CCS) shall not exceed a maximum of 25,000 tons at any one time.
- c. The maximum amount of raw materials (argillite) processed in all kilns (ID Nos. ES-7 and ES-8) shall not exceed a total of 350,400 tons per any consecutive 12-month period. In addition, the maximum amount of raw materials (argillite) processed in kiln (ID No. ES-8) shall not exceed 40 tons per hour and 236,074 tons per any consecutive 12-month period.
- d. The total coal combusted in all kilns (ID Nos. ES-7 and ES-8) shall not exceed 32,157 tons per any consecutive 12-month period.
- e. On days when the portable screening and conveying operation is not operated, operation of the lightweight aggregate finished product operations and processes (except dust silo and dust silo loadout) shall not exceed eleven hours per day. As an alternative, the Permittee can limit the finished product operations to 2,475 tons per day at a maximum crushing capacity of 225 tons per hour.
- f. On days when the portable screening and conveying operations is operated, operation of the lightweight aggregate finished product operations and processes (except dust silo and dust silo loadout) shall not exceed eleven hours per day. As an alternative, the finished product operation shall be limited to a combined

throughput of 2,475 tons per day of feed to the finished product operation feed hopper (**ID No. FCS-41**) and portable screener feed hopper (**ID No. PSH-1**).

- g. The moisture content of the clinker, prior to crushing in the finish crusher (**ID No. FCS-41 or FCS-21**) shall not be less than 1.5 percent by weight.
- h. The finished product storage area (**ID No. FP**) and Manufactured Soil Operations (**ID No. ES-MSO**) shall not be located:
 - i. within 100 meters of the nearest property boundary or fence line, whichever is closest to the storage area with the exception that the railroad tracks shall constitute the storage area limit, in that no finished product storage areas (**ID No. FP**) shall be located or placed north (office/tank farm side) of the railroad tracks at any time; except the portion identified as **FM-2** may be constructed north of the railroad tracks within 100 meters of the fence line.
 - ii. except for and along the railroad tracks, and the fence line in the vicinity of portion identified as **FM-2**, the Permittee shall install and maintain one or more 100 meter markers, as necessary or requested, to ensure and demonstrate that the 100 meter limitation between the storage areas and the nearest property boundary or fence line, whichever is closer, is not encroached upon inadvertently or otherwise.
- i. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(e) if these limits in Section 2.2 A.1.a. through h. above, are exceeded.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- j. Compliance with the raw materials (argillite) processing limitation shall be determined by recording of the weight of argillite, by conveyor weight scale for all raw materials conveyed to each kiln (**ID Nos. ES-7 and ES-8**), and by weight scale (installed on the discharge of the hopper) or bucket weighing device (installed on front end loader) for all raw materials conveyed to portable screener feed hopper (**ID No. PSH-1**). Kiln production tonnage losses due to conveyor spillage and which do not enter a kiln may be deducted from the respective kiln production tonnage limitation only after the spillage weight is documented by weigh scale and properly recorded in the kiln production records.
- k. Compliance with the coal processing limitation shall be determined by one of the following methods:
 - i. recording of the weight of coal, by conveyor weight scale for total coal combusted in all kilns,
 - ii. maintaining records of the year beginning and year ending inventories of coal storage, combined with records of each shipment of coal received at the facility during the compliance period, or
 - iii. other means as approved by the DAQ.
- l. Compliance with the finished products storage areas and coal storage area limitations shall be determined using the daily production, process, and sales records of the materials (argillite) processed at the facility. The calculated inventories of these materials shall be adjusted as necessary by performing a physical inventory of the materials stored at the facility.
- m. Kiln production records for each kiln shall be recorded, maintained on-site, and available upon request for DAQ review and inspection.
- n. The Permittee shall perform calibrations on each weigh belt scale in accordance with the manufacturer's specifications, used for raw materials processing and coal processing sources and record each event. The calibrations records shall be maintained on-site, and available upon request for DAQ to review and inspection.
- o. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(e) if these records, as included in Section 2.2 A.1.j. through n. above, are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- p. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. the maximum number of hours of operation per day for finished product operations or maximum daily throughput totals, including materials processed through portable screener feed hopper (**ID No. PSH-1**)

- (depending on the chosen compliance method detailed in Section 2.2 A.1.e. and f. above);
- ii. the maximum total tons of finished products, and coal stored on-site;
 - iii. the facility wide total tons of raw materials (argillite) processed and coal combusted for the previous 14 months. The raw materials (argillite) processing and coal combusted shall be reported for each of the 1 month periods over the previous 14 months; and
 - iv. the monthly particulate matter emissions for the previous 14 months from each permitted source. The emissions must be calculated for each of the 12-month periods over the previous 14 months;
- All instances of deviations from the requirements of this permit must be clearly identified.

B. Multiple Emission Sources

State-enforceable only

1. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following emission limits shall not be exceeded from all sources, including fugitive sources, at the facility:

Before the Commencement of Operation of Kiln (ID No. ES-9)

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Manufactured Soil Operations (ID Nos. ES-MSH-1, through ES-MSH-4, ES-MS-1 through ES-MS-3, ES-MSL-1 and ES-MSO)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	2.73E-03 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Conveyor (ID Nos. RCS-12, RCS-23 through RCS-30)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	9.62E-03 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14 E-05 lb/day 0.019 lb/day
Secondary crusher (ID No. FCS-2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.02E-02 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Secondary screens (ID Nos. FCS-19 and FCS-20) (combined total emissions from both screens)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.40E-02 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Secondary crusher (ID No. FCS-3)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.02E-02 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Secondary screens (ID Nos. FCS-29 and FCS-30) (combined total emissions from both screens)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.40E-02 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-4)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.90E-02 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyors (ID No. FCS-5 and FCS-11) (combined total emissions from both conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	2.07E-03 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-8)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.90E-04 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-10)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	2.36E-03 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyors (ID Nos. FCS-12 and FCS-17) (combined total emissions from both conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	2.07E-03 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-13)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.18E-03 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-14)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.90E-04 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-C1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	2.95E-04 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-C2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.90E-04 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-C3)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.90E-04 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyor (ID No. FCS-C4)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.90E-04 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-C5)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.90E-04 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Trommel Screen (ID No. ATS-1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.04E-01 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Portable Jaw Crusher (ID No. APJC-1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	6.06E-02 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Storage silo (ID No. RCS-18)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.87E-03 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Storage silo (ID No. RCS-19)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.87E-03 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Storage silo (ID No. RCS-20)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.87E-03 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Storage silo (ID No. FCS-22)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.29E-03 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24 E-06 lb/day 0.00873 lb/day
Storage silo (ID No. FCS-23)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.29E-03 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24 E-06 lb/day 0.00873 lb/day
Storage silo (ID No. FCS-24)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.29E-03 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24 E-06 lb/day 0.00873 lb/day
Storage silo (ID No. FCS-25)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.29E-03 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24 E-06 lb/day 0.00873 lb/day
Loadout bin (ID No. FCS-28)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.29E-03 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24 E-06 lb/day 0.00873 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Surge hopper (ID No. FCS-26)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.32E-02 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24 E-06 lb/day 0.00873 lb/day
Surge hopper (ID No. FCS-27)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.32E-02 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24 E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-36)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	2.95E-04 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-38)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	4.57E-04 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Conveyor (ID No. FCS-39)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	9.16E-04 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Conveyor (ID No. FCS-40)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	9.16E-04 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Hopper (ID No. FCS-41)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	3.84E-02 lb/yr 3.18E-03 lb/yr 1.57E-02 lb/yr 1.17E-03 lb/yr 0.007381 lb/day 5.24E-06 lb/day 0.00873 lb/day
Conveyor (ID No. FCS-42)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.83E-04 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Conveyor (ID No. FCS-43)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	9.16E-04 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Trommel Screen Diesel Engine (ID No. ATS-1-eng)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel Benzene	5.12E-02 lb/yr 2.54E-01 lb/yr 2.54E-01 lb/yr N/A 0.016104 lb/day 6.96E-04 lb/day 0.019 lb/day 79.7 lb/yr
Portable Crusher Diesel Engine (ID No. APJC-1-eng)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel Benzene	1.30E-01 lb/yr 6.48E-01 lb/yr 6.48E-01 lb/yr N/A 0.016104 lb/day 1.78E-03 lb/day 0.019 lb/day 201.5 lb/yr
Portable Screen Diesel Engine (ID No. PSG-1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel Benzene	2.76E-02 lb/yr 1.40E-01 lb/yr 1.40E-01 lb/yr N/A 0.016104 lb/day 3.84E-04 lb/day 0.019 lb/day 43.8 lb/yr

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Portable Conveyor Diesel Engine (ID No. RUC-1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel Benzene	1.97E-02 lb/yr 8.94E-02 lb/yr 1.05E-01 lb/yr N/A 0.016104 lb/day 2.88E-04 lb/day 0.019 lb/day 31.5 lb/yr
Dust silo (ID No. DS1-B)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	7.83E-04 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Dust silo (ID No. DS2-B)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.79E-03 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Kiln coal hopper (ID No. CCH-2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	2.54E-04 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Kiln coal conveyors (ID Nos. CCB-2 and CCB-3) (combined total emissions from both coal conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.07E-04 lb/yr 6.95E-03 lb/yr 3.42E-02 lb/yr 2.56E-03 lb/yr 0.016104 lb/day 1.14E-05 lb/day 0.019 lb/day
Finished product storage areas (ID No. FP) [Includes stockpiles located north of the railroad tracks identified as FM-2]	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	5.16E-02 lb/yr 1.705E-02 lb/yr 6.84E-02 lb/yr 1.495E-02 lb/yr 0.048024 lb/day 2.28E-05 lb/day 0.04673 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Coal storage piles (ID No. CCS)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	1.455E-1 lb/yr 1.39E-02 lb/yr 6.84E-02 lb/yr 5.12E-03 lb/yr 0.032208 lb/day 2.28E-05 lb/day 0.016453 lb/day
Kilns (ID Nos. ES-7 and ES-8)	arsenic benzene beryllium cadmium fluorides soluble chromate compounds, as chromium (VI) equivalent (as chromic acid) manganese mercury nickel	1.535E+01 lb/yr 166.5 lb/yr 1.0178E+02 lb/yr 1.49E+02 lb/yr 2.09 lb/hr, 50.18 lb/day 0.107 lb/day 1.0032 lb/day 7.02 lb/day 0.931 lb/day

After the Commencement of Operation of Kiln (ID No. ES-9)

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Manufactured Soil Operations (ID Nos. ES-MSH-1, through ES-MSH-4, ES-MS-1 through ES-MS-3, ES-MSL-1 and ES-MSO)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00273 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Conveyor (ID Nos. RCS-12, RCS-23 through RCS-30)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00172 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Secondary crusher (ID No. FCS-2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00903 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Secondary screens (ID Nos. FCS-19 and FCS-20) (combined total emissions from both screens)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.0248 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Secondary crusher (ID No. FCS-3)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00903 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Secondary screens (ID Nos. FCS-29 and FCS-30) (combined total emissions from both screens)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.0248 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-4)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000511 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyors (ID No. FCS-5 and FCS-11) (combined total emissions from both conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00172 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-8)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000511 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-10)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00172 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyors (ID Nos. FCS-12 and FCS-17) (combined total emissions from both conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00172 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-13)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00172 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-14)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000511 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-C1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000255 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyor (ID No. FCS-C2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000511 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-C3)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000511 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-C4)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000511 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-C5)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000511 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Storage silo (ID No. RCS-18)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00335 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Storage silo (ID No. RCS-19)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00335 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Storage silo (ID No. RCS-20)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00335 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Storage silo (ID No. FCS-22)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00351 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Storage silo (ID No. FCS-23)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00351 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Storage silo (ID No. FCS-24)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00351 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Storage silo (ID No. FCS-25)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00351 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Loadout bin (ID No. FCS-28)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00351 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Surge hopper (ID No. FCS-26)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.0162 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Surge hopper (ID No. FCS-27)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.0162 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyor (ID No. FCS-36)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000255 lb/yr 0.0041 lb/yr 0.016 lb/yr 0.00086 lb/yr 0.0738 lb/day 0.00000308 lb/day
Conveyor (ID No. FCS-39)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000594 lb/yr 0.000894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Conveyor (ID No. FCS-40)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000594 lb/yr 0.000894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Hopper (ID No. FCS-41)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.0112 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Conveyor (ID No. FCS-42)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000594 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Conveyor (ID No. FCS-43)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00062 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Dust silo (ID No. DS1-B)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.0026 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Dust silo (ID No. DS2-B)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000422 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Kiln coal hopper (ID No. CCH-2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000784 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Kiln coal conveyors (ID Nos. CCB-2 and CCB-3) (combined total emissions from both coal conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000784 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Finished product storage areas (ID No. FP) [Includes two stockpiles located north of the railroad tracks identified as FM-2]	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.0686 lb/yr 0.0179 lb/yr 0.068 lb/yr 0.00376 lb/yr 0.322 lb/day 0.0000134 lb/day
Coal storage piles (ID No. CCS)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.037 lb/yr 0.0179 lb/yr 0.068 lb/yr 0.00376 lb/yr 0.321 lb/day 0.0000134 lb/day
Kiln (ID Nos. ES-8))	arsenic beryllium cadmium fluorides Soluble chromate compounds, as chromium (VI) equivalent manganese mercury	10.3 lb/yr 1.46 lb/yr 5.43 lb/yr 0.60 lb/hr, 14.4 lb/day 0.149 lb/day 1.60 lb/day 0.101 lb/day
Conveyor (ID Nos. RCS-91)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00119 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00168 lb/yr 0.161 lb/day 0.00000672 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyor (ID Nos. RCS-94)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00119 lb/yr 0.00894lb/yr 0.034 lb/yr 0.00168 lb/yr 0.161 lb/day 0.00000672 lb/day
Conveyor (ID Nos. RCS-95)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00119 lb/yr 0.00894l b/yr 0.034 lb/yr 0.00168 lb/yr 0.161 lb/day 0.00000672 lb/day
Kiln coal hopper (ID No. CCH-3)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00159 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Kiln coal conveyor (ID Nos. CCB-4)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00159 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Kiln coal conveyor (ID Nos. CCB-5)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00159 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Storage silos (ID No. RCS-92-93)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.0223 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188l b/yr 0.161 lb/day 0.00000672 lb/day
Coal Storage silo (ID No. CCS-1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00159 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Clinker storage area (ID No. FP2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.0439 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Conveyor (ID No. FCS-44)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000119 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Conveyor (ID No. FCS-45)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000119 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Conveyor (ID No. FCS-46)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000119 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Conveyor (ID No. FCS-47)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.000119 lb/yr 0.00894 lb/yr 0.034 lb/yr 0.00188 lb/yr 0.161 lb/day 0.00000672 lb/day
Dust silo (ID No. DS3-C)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury	0.00156 lb/yr 0.0178 lb/yr 0.068 lb/yr 0.00376 lb/yr 0.322 lb/day 0.000134 lb/day
Kiln (ID Nos. ES-9)	Arsenic Beryllium Cadmium Fluorides Hydrogen Chloride Soluble chromate compounds, as chromium (VI) equivalent Manganese Mercury	22.9 lb/yr 3.26 lb/yr 12.1 lb/yr 0.50 lb/hr, 12.0 lb/day 1.1 lb/hr 0.299 lb/day 3.19 lb/day 0.202 lb/day

- b. To meet the requirements of 15A NCAC 02D .1100, the Permittee shall comply with the following conditions, stipulations and limitations:
- i. Compliance with the individual toxic air pollutant emission rates for the raw materials and finished product operations sources (**ID Nos. RCS-12, RCS-18 through RCS-20, RCS-23 through RCS-30, FCS-2 through FCS-5, FCS-8, FCS-10 through FCS-14, FCS-17, FCS-19 through FCS-30, FCS-36, FCS-C1 through FCS-C5, FP, DSC-1, PSH-1, PS-1, PSC-1 through PSC-5, and PSG-1**) shall be demonstrated through compliance with the daily operational limits as included in Section 2.2 A.1.e. and f. above. In addition, the Permittee shall sample and analyze raw materials once a quarter, and estimate the arsenic emission rates from each raw materials operations source (**ID Nos. RCS-12, RCS-18 through RCS-20, RCS-23 through RCS-30**) and submit within 30 days of each quarter, the results of the sampling and analysis and estimated emission rated to DAQ for demonstration of compliance with modeled emission rates included in the Section 2.2 B.1. tables above.
 - ii. The maximum sulfur content of coal combusted in any kiln (**ID Nos. ES-7 and ES-8**) shall not exceed 1.7 percent by weight.
 - iii. The minimum stack velocity for any bagfilter (**ID Nos. CD-7B and CD-8B**) shall not be less than 7 meters per second each. The stack velocity through each of the bagfilter (**ID Nos. CD-7B and CD-8B**) shall be continuously measured by an annubar or other device installed on the clean side of the bagfilters, and hourly rolling average for stack velocity through each of the bagfilters (**ID Nos. CD-7B and CD-8B**) shall be estimated and recorded. The Permittee shall develop an inspection and maintenance plan including the procedure for calibration of annubar or other device and submit it to DAQ for approval within 60 days of approval of this permit. To assure compliance, the Permittee shall perform inspection and maintenance, and calibration of the annubar and other device, as per the approved annubar cleaning/maintenance procedure. The results of inspection and maintenance activities including the calibration of the equipment shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - A) the date and time of each recorded action;
 - B) the results of each inspection;
 - C). the results of any maintenance performed on the annubars; and
 - D). any variance from manufacturer's recommendations, if any, and corrections made.
 - iv. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits for benzene and nickel² as included in the Section 2.2 B. tables above by testing one of the kilns (**ID Nos. ES-7 and ES-8**) in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 – General Condition JJ. Testing shall be completed within 180 days of restart of the either kiln (**ID Nos. ES-7 or ES-8**). If the test results indicate the emissions do not exceed 80% of the emission limits of benzene and nickel given in the Section 2.2 B. tables above, the Permittee is not required to perform any additional testing for toxic air pollutants for the remaining duration of the permit. Otherwise the Permittee shall perform testing for these toxic air pollutants once every year for the remaining duration of the permit on both kilns (**ID Nos. ES-7 and ES-8**).

C. Facility-Wide

State-enforceable only

1. **15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

² Stack testing of lightweight aggregate kiln (**ID No. ES-7**) was conducted on March 26 and May 29, 2006 for hydrogen fluoride (i.e., fluorides), arsenic, beryllium, cadmium, chromium, mercury, and manganese.

SECTION 3 - GENERAL CONDITIONS (version 4.0 12/17/15)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be met.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NO_x budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 02Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.

2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.

3. Minor Permit Modifications [15A NCAC 02Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.

4. Significant Permit Modifications [15A NCAC 02Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.

5. Reopening for Cause [15A NCAC 02Q .0517]

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:

- a. changes in the information submitted in the application;
- b. changes that modify equipment or processes; or
- c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]

- a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
- b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;

- iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
- a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A. Reporting Requirements for Excess Emissions and Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.*)

“Deviations” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B Other Requirements under 15A NCAC 02D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. Emergency Provisions [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. Permit Renewal [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either

of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or

interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR § 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. Title IV Allowances [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. Air Pollution Emergency Episode [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. Ambient Air Quality Standards [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.

- a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
- b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. Specific Permit Modifications [15A NCAC 02Q.0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. Third Party Participation and EPA Review [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound